

8-8: The Binomial Theorem

Warm-up: 1. Multiply $x^2 + 2xy + y^2$ by $x + y$.

2. Multiply your answer to question 1 by $x + y$.

3. Expand $(x + y)^4$.

Binomial Theorem:

Binomial Coefficients:

Example 1: Give the coefficient of a^9b^2 in $(a + b)^{11}$.

Example 2: Expand $(4x + 5y)^5$.

Example 3: Expand $(4x^2 + 5y)^5$.

Example 4: A coin is tossed 6 times. How many of the possible outcomes have at least three heads?

Homework:

"The computer is a moron." = Peter Drucker